

Can Everyone Be Smart at Everything?

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When a student gets a good grade, wins an award, or proudly holds up a painting, we all know by now that we're not supposed to say, "Good job!" Praising the achievement rather than the effort will backfire.

To a kid, "Good job" means "You're smart" or "You're talented" — the praise goes to inherent, natural-born abilities or intelligence. But that immediate spark of self-pride will turn into deep self-doubt when the child invariably comes across a bigger challenge and doesn't immediately succeed.

Kids who are praised for their intelligence end up caring more about grades, trophies, and awards than those who are praised for their effort, according to the famous 1998 Stanford report "Effects of Intelligence and Effort Praise" by Claudia Mueller and Carol Dweck. The study showed that "after failure, [kids] also displayed less task persistence, less task enjoyment, more low-ability attributions, and worse task performance than children praised for effort."

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But there's another byproduct: children praised for intelligence "described it as a *fixed trait* more than children praised for hard work, who believed it to be subject to improvement."

Why is that such a bad thing? Because telling kids they're smart when they get good grades encourages them to continue focusing on the grade rather than the learning process. They just want to keep being smart.

BEYOND SMARTS

In more recent years, research on *how* the brain learns is building on those studies. "How we learn shapes what we know and what we can do," writes author Annie Murphy Paul [in a recent *Time* column](#). "Our knowledge and our abilities are largely determined not by our IQ or some other fixed measure of intelligence, but by the effectiveness of our learning process: call it our learning quotient."

The idea that anyone can learn, regardless of their inherent IQ — with emphasis on the process, the work, the effort — is at the heart of the work of [Rodolfo Mendoza-Denton](#), associate professor of psychology at UC Berkeley.

Mendoza-Denton extends the idea that what's harmful about emphasis on achievement and intelligence can also be applied to emphasis on learning styles (audio, visual) or "[multiple intelligences](#)," a theory by Harvard professor [Howard Gardner](#) who distinguishes between different kinds of learners: spatial, linguistic, logical-mathematical, and so on.



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Recent studies question the theory of native intelligences.
If they have to work hard, does that mean they're not smart?

Mendoza-Denton believes that emphasizing “native intelligences” reinforces the belief that kids are good at some things and, conversely, bad at others.

“It’s pervasive in our cultural narrative,” Mendoza-Denton said at the recent [Innovative Learning Conference](#). “I’m not this kind of learner or that kind of learner. I’m good at words, but not math.”

Taking that idea one step further, kids might think that if they have to work hard at something, that must mean they’re not smart. “It’s a theory about how the world works,” he said.

A [recent story on NPR](#) somewhat backs up Mendoza-Denton’s theories. Although “an entire industry has sprouted based on learning styles,” a review of learning style studies led psychologist Doug Rohrer to believe that there is “no scientific evidence backing up the idea.”

“We have not found evidence from a randomized control trial supporting any of these, and until such evidence exists, we don’t recommend that they be used,” he [told NPR](#).

Another researcher added more nuance. In a [recent story by California Watch](#), a researcher questions the effects of calling out native abilities. “Clearly, people have distinctive abilities and aptitudes. Some people have higher visual ability, and some have higher auditory ability,” said UCSD professor Hal Pashler, lead author on the report. “But the question is whether that predicts anything about the most effective way to teach them. ... There is a complete lack of evidence of the sort.”

This has caused a [big debate](#) in education circles by those who question the motivation of those debunking learning styles. But Mendoza-Denton maintains that reinforcing the idea that effort and elbow grease are as important or more than innate smarts will place kids on the best path of learning.

“Instead of saying, ‘I’m not good at math, why bother trying,’ she’ll say, ‘I didn’t study enough, so I should try harder,’” Mendoza-Denton said. “The meaning of difficulty changes. Difficulty means trying harder, trying a different strategy. They understand that change is possible, and progress occurs over time.”

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And just as importantly, that mistakes are *part* of good learning. As a [Wired article](#) recently reported about why some are more effective at learning from mistakes, “the important part is what happens next.” People with a “growth mindset” — those who “believe that we can get better at almost anything, provided we invest the necessary time and energy” — were significantly better at learning from their mistakes.

This also touches on social justice issues, of course, that bring up stereotype beliefs about gender and race — Asians are better at math, girls are worse at math, African Americans don’t do well on tests like the SAT. Mendoza-Denton cited a number of studies that showed students live up (or down) to the expectations set for them. It’s a self-fulfilling prophecy.

All of this is not to say that people don’t have specific talents, he said. “People have aptitudes that are undeniable,” he said. “We can’t all be geniuses, but we can all access learning.”

So what should parents and teachers take away from this? What we might consider ancillary to learning — things like bonding with the teacher or mentor, words of praise about working hard over good grades — are actually crucial to achievement. “Simple things can affect achievement in a deep way,” he said.

All of this raises further questions. What values about learning do we want for our kids? Is it important for them to be naturally smart to be ultimately successful? What does this say about our school assessments? How do we measure and define “achievement” without grades? More food for thought.

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